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MAIS, MARK A				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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# Office Action Summary

## Application No.

10/779,336

## Applicant(s)

HIGUCHI ET AL.

## Examiner

MARK MAIS

## Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 5/6/2009.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) was filed on May 6, 2009. The submission is in compliance with the provisions of 37 C.F.R. 1.97. According, the examiner considered the IDS.

### ***Specification***

2. The disclosure is objected to because of the following informalities: a Replacement Sheet for Figure 22 has been entered and designated as "Related Art." The description of Figure 22 in the Specification should have a corresponding entry. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Independent claims 1, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "accommodated" in claims 1, 8, and 9 is a relative term which renders the claim indefinite. The term "accommodated" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Dependent claims 3-7 and 10 are also rejected since they depend from claims 1 and 9, respectively, and contain the same deficiencies.

5. Independent claims 1, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: (a) how the mobile station is "accommodated" by the terminal node; and/or (b) how the mobile station is "accommodated" by the terminal node of interest; and/or (c) how the management information is "accommodated" by the mobile station; and/or (d) how the management information is "accommodated" by the terminal node; and/or (e) how the management information is "accommodated" by the terminal node of interest [***See Also the 35 USC 112, 2<sup>nd</sup> Paragraph rejection above with respect to "accommodated"***]. Dependent claims 3-7 and 10 are also rejected since they depend from claims 1 and 9, respectively, and contain the same deficiencies.

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6. Claims 1, 8, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: (1) a data channel registration performed after the initial mobile-base station handshake, which allows the mobile station to receive user packets from the claimed terminal node of interest and/or (2) a transmission or communication from the “terminal node of interest” to “each terminal node of the plurality of nodes” which allows “each terminal node of the plurality of nodes” to transmit user packets to the “mobile station of interest” and/or (3) a transmission or communication from the “each terminal node of the plurality of nodes” to “each intermediate node”/“each node” which allows “each intermediate node”/“each node” to broadcast user packets to the “each terminal node of a plurality of terminal nodes.” Said another way, the broadcast message setup signaling is missing, as well as the conditions which trigger such a broadcast message from “each intermediate node”/“each node” to the “the plurality of terminal nodes” for a specific “mobile terminal of interest.”

7. Claims 1 and 8 is are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 8 recite the limitation “a mobile station” three times in each claim. There is insufficient antecedent basis for these limitations in these claims. Specifically, these limitations may refer to “one mobile station,” or “a second mobile station,” “a third mobile station,” “a mobile station of interest, or “said mobile station.” Correction is required.

8. Independent claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: how “each intermediate node” is related to (a) “a node disposed on the superordinate side in the hierarchy” (b) “each terminal node of the plurality of terminal nodes” (c) “a terminal node of interest” (d) a mobile station and/or (e) a mobile station of interest.

9. Independent claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: how “each node” is related to (a) “a node” (b) “hierarchically disposed nodes” (c) “each terminal node of the plurality of terminal nodes” (c) “a terminal node of interest” (d) a mobile station and/or (e) a mobile station of interest.

10. Claims 3-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3-7 recites the limitation “the terminal node”. There is insufficient antecedent basis for this limitation in these claims. Specifically, this limitation may refer to “each terminal node of a plurality of nodes” or the “terminal node of interest.” Correction is required.

*Claim Rejections - 35 USC § 103*

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 3-7 and 8-10 are rejected under 35 U.S.C. 103(a) as obvious over Willars et al. (USP 7,072,329).

13. With regard to claims 1 and 6, Willars et al. discloses a mobile communication system performing both radio communication to a mobile station and packet communication within the system, said mobile communication system comprising:

a top node [Fig. 2B, GGSN 20] located at a boundary between a mobile communication network [Fig. 2B, UTRAN 24] and a fixed network of an IP network system [Fig. 2B, Internet 14];

a plurality of terminal nodes [Fig. 2B, interpreted as the combination of BS28<sub>1</sub>,  
1 and Interworking unit 50B (BS28<sub>1-1</sub>/Interworking unit 50B), BS28<sub>1-2</sub>, BS28<sub>2-1</sub>,  
BS28<sub>2-2</sub> (terminal nodes) (base station—claim 6)] respectively to accommodate mobile stations thereunder [e.g., Fig. 2B, UE 30];

a plurality of intermediate nodes [Fig. 2B, RNC 26<sub>1</sub>, RNC 26<sub>2</sub>] layered in a tree shaped connection structure and provided between the top node and the terminal nodes, the tree-shaped connection structure having a network structure in which there is no redundant routes for IP packets to each terminal node *of the plurality of terminal nodes* [Fig. 2B, there are no redundant IP packet communication routes to each of BS28<sub>1-1</sub>/Interworking unit 50B, BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, or BS28<sub>2-2</sub> from GGSN 20],

wherein each *terminal node* of the plurality of terminal nodes retains respective management information of a mobile station *which is accommodated in a terminal node of interest* [base stations retain management information of the mobile stations registered and communicating in their respective zones; additionally, Interworking Node 50 has an internal database 52 which contains the IP addresses of UEs, col. 11, lines 37-40], and

*wherein each intermediate node of the plurality of intermediate nodes transfers user data received from any node located from within the mobile communication network, including a top node, an intermediate node, or a terminal node* [e.g., RNC 26<sub>1</sub> transmits data to BS28<sub>1-1</sub>/Interworking unit 50B], or received from a different network and addressed to the mobile communication network [e.g., RNC 26<sub>1</sub> transmits data to BS28<sub>1-1</sub>/Interworking unit 50B], by use of a broadcast format to the plurality of terminal nodes, in which the user data is further transmitted to a mobile station subordinate to and managed by the terminal node of interest [Fig. 2B, communications to/from Internet 14—GGSN 20—RNC26<sub>1</sub>—BS28<sub>1-1</sub>/Interworking Node 50B—UE 30 (via broadcast channels col. 9, lines 1-6)], based on the management information retained by the terminal node of interest [base stations retain management

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**information of the mobile stations registered and communicating in their respective zones; additionally, Interworking Node 50B of BS28<sub>1-1</sub>/Interworking unit 50B has an internal database 52 which contains the IP addresses of UEs, col. 11, lines 37-40].**

Willars et al. does not specifically disclose the broadcast format for transferring data. However, a broadcast format is well known in wireless communications—especially regarding radio network controllers executing a soft handoff for UE 30 moving from the zone for BS28<sub>1-1</sub>/Interworking unit 50B to the zone for BS28<sub>1-2</sub>; during a soft handoff, the radio network controller “broadcasts” the data to both base stations (as control is passed from one base station to the other) so that the same information is sent to UE 30. Additionally, it is well known to use broadcast communications to transfer data. Thus, using a broadcast format to transfer data would have been obvious to one of ordinary skill in the art at the time of the invention in order to reduce complexity as well as ensure that all subordinate base stations receive the same information that is sent to UE 30.

14. With regard to claim 3, Willars et al. discloses that a parameter requesting to use a common traffic channel is contained in a connection request signal transmitted from the mobile station to the terminal node [Fig. 2B, between UE 30 and BS28<sub>1-1</sub>/Interworking Node 50B; in UMTS, signaling occurs for the UE to request access to a common channel; for example, using the RACH (col. 9, lines 6-10); the connection request parameter can be any part of the connection request: the packet, the header, the payload, a flag, etc. ], and by use of the parameter, the terminal node secures a transmission path for transferring the user data on the common traffic channel provided

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between the mobile station and the terminal node **[the UE can transmit/receive data using common traffic channels, col. 9, lines 13-16].**

15. With regard to claim 4, Willars et al. discloses that an IP address assigned to the mobile station is further contained in the connection request signal and the terminal node generates a management table having the IP address correspondingly to a number for identifying the mobile station, and the mobile station is managed on an IP address basis according to the management table **[UMTS supports both IPv4 and IPv6 on the user plane; base stations retain management information of the mobile stations registered and communicating in their respective zones and thus, BS28<sub>1-1</sub>/Interworking Node 50B would have a table of all assigned IP addresses which correspond to UEs IDs in the area it serves; for example, BS28<sub>1-1</sub>/Interworking Node 50B (w/internal database 52) can translate the UEs' E.164 identification to the correct IP address (col. 12, lines 13)].**

16. With regard to claim 5, Willars et al. discloses that the terminal node comprises at least a function of managing the terminal location, a function of managing a communication path, and environment setting information necessary for establishing packet communication between the mobile station and the terminal node **[Fig. 2B, between UE 30 and BS28<sub>1-1</sub>/Interworking Node 50B (w/internal database 52); in UMTS, signaling occurs for the UE to request access to a common channel; for example, using the RACH (col. 9, lines 6-10)]** and a message transmitted from the mobile station for generating the environment setting information is terminated in the

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terminal node [in UMTS, signaling occurs for the UE to request access to a common channel; for example, using the RACH (col. 9, lines 6-10); base stations manage communications to and from a subscriber UE].

17. With regard to claim 7, Willars et al. discloses that a first processing procedure registering the location of the mobile station into the terminal node by setting up a signal transmission path between the terminal node and the mobile station [in UMTS, signaling occurs for the UE to request access to a common channel; for example, using the RACH (col. 9, lines 6-10); base stations manage communications to and from a subscriber UE];

a second processing procedure setting a mobile communication environment [the radio connection to the base station, col. 2, lines 31-34]; and

a third processing procedure setting up a user data transmission path [Fig. 2B, communications to/from Internet 14--GGSN 20--RNC26<sub>1</sub>--BS28<sub>1,1</sub>/Interworking Node 50B (w/internal database 52)--UE 30 via broadcast channels col. 9, lines 1-6].

18. With regard to claim 8, Willars et al. discloses a mobile communication system transmitting information either addressed to or originated from a mobile station [Fig. 2B, UE 30] on a packet communication basis between hierarchically disposed nodes,

wherein the hierarchically disposed nodes are layered in a tree-shape connection structure having a network structure in which there are no redundant routes for IP packets to each terminal node [Fig. 2B, there are no redundant IP packet communication

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**routes to each of BS28<sub>1-1</sub>/Interworking unit 50B, BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, or BS28<sub>2-2</sub> (terminal nodes) from GGSN 20],**

wherein a node disposed on the superordinate side [Fig. 2B, RNC 26<sub>1</sub>] in the hierarchy comprises a means for transmitting a packet in a broadcast format to *a plurality of terminal nodes* disposed on a subordinate side [Fig. 2B, interpreted as the **combination of BS28<sub>1-1</sub> and Interworking unit 50B (BS28<sub>1-1</sub>/Interworking unit 50B), BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, BS28<sub>2-2</sub> (terminal nodes)**], and

*each terminal node of the plurality of terminal nodes* disposed on the subordinate side in the hierarchy [Fig. 2B, **each of BS28<sub>1-1</sub>/Interworking unit 50B, BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, or BS28<sub>2-2</sub> (terminal nodes)**] comprises a means for transmitting [Fig. 2B, **BS28<sub>1-1</sub>/Interworking unit 50B has transmission/reception means**] a *user* packet to a predetermined node superordinate to *a terminal node of interest* [Fig. 2B, interpreted as **GGSN 20**], according to information received from the mobile station *accommodated in the terminal node of interest* [Fig. 2B, **communications to/from Internet 14—GGSN 20—RNC26<sub>1</sub>—BS28<sub>1-1</sub>/Interworking Node 50B (w/internal database 52)—UE 30 via broadcast channels col. 9, lines 1-6**]; and

wherein *each intermediate node of the plurality of intermediate nodes* [Fig. 2B, **RNC 26<sub>1</sub>**] *transfers user data received from any node located from within the network structure, including a top node, an intermediate node, or a terminal node* [e.g., **RNC 26<sub>1</sub> transmits data to BS28<sub>1-1</sub>/Interworking unit 50B**], *or received from a different network and addressed to the network structure* [e.g., **RNC 26<sub>1</sub> transmits data to BS28<sub>1-1</sub>/Interworking unit 50B**], *by use of a broadcast format to the plurality of terminal nodes, in which the user data is further transmitted to a mobile station subordinate to and*

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*managed by the terminal node of interest [Fig. 2B, communications to/from Internet 14—GGSN 20—RNC26<sub>1</sub>—BS28<sub>1-1</sub>/Interworking Node 50B—UE 30 (via broadcast channels col. 9, lines 1-6)], based on the management information retained by the terminal node of interest [base stations retain management information of the mobile stations registered and communicating in their respective zones; additionally, Interworking Node 50B of BS28<sub>1-1</sub>/Interworking unit 50B has an internal database 52 which contains the IP addresses of UEs, col. 11, lines 37-40].*

Willars et al. does not specifically disclose the broadcast format for transferring data. However, a broadcast format is well known in wireless communications—especially regarding radio network controllers executing a soft handoff for UE 30 moving from the zone for BS28<sub>1-1</sub>/Interworking unit 50B to the zone for BS28<sub>1-2</sub>; during a soft handoff, the radio network controller “broadcasts” the data to both base stations (as control is passed from one base station to the other) so that the same information is sent to UE 30. Additionally, it is well known to use broadcast communications to transfer data. Thus, using a broadcast format to transfer data would have been obvious to one of ordinary skill in the art at the time of the invention in order to reduce complexity as well as ensure that all subordinate base stations receive the same information that is sent to UE 30.

19. With regard to claim 9, Willars et al. discloses that a node included in a mobile communication system transmitting information either addressed to or originated from a mobile station [Fig. 2B, UE 30] on a packet communication basis between hierarchically disposed nodes,

wherein the hierarchically disposed nodes are layered in a tree-shape connection structure having a network structure in which there are no redundant routes for IP packets to each terminal node [Fig. 2B, **there are no redundant IP packet communication routes to each of BS28<sub>1-1</sub>/Interworking unit 50B, BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, or BS28<sub>2-2</sub> (terminal nodes) from GGSN 20**], and

each node [Fig. 2B, RNC 26<sub>1</sub>] comprises:

a transmission unit to transmit [Fig. 2B, RNC26<sub>1</sub>; in UMTS, RNC26<sub>1</sub> has **multiple transmission/reception means**] a *user* packet in a broadcast format to a *plurality of terminal* nodes disposed on subordinate side [Fig. 2B, BS28<sub>1-1</sub>/Interworking Node 50B (w/internal database 52)] in the hierarchy; and a reception unit to receive a *user* packet transmitted from a predetermined subordinate node [Fig. 2B, RNC26<sub>1</sub>; in UMTS, RNC26<sub>1</sub> has **multiple transmission/reception means**],

wherein each *terminal node* of the plurality of terminal nodes [Fig. 2B, **interpreted as the combination of BS28<sub>1-1</sub> and Interworking unit 50B (BS28<sub>1-1</sub>/Interworking unit 50B), BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, BS28<sub>2-2</sub> (terminal nodes)**] retains respective management information of a mobile station *of interest which is accommodated in a terminal node of interest*, [Fig. 2B, BS28<sub>1-1</sub>/Interworking Node 50B (w/internal database 52); base stations retain management information of the mobile stations registered and communicating in their respective zones; additionally, Interworking Node 50 has an internal database 52 which contains the IP addresses of UEs, col. 11, lines 37-40] and

wherein each *terminal node* of the plurality of nodes transmits the broadcasted *user packet to the mobile station of interest* [Fig. 2B, **communications to/from Internet**

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**14--GGSN 20—RNC26<sub>1</sub>—BS28<sub>1-1</sub>/Interworking Node 50B—UE 30 (via broadcast channels col. 9, lines 1-6)], based on the management information retained by the terminal node of interest [base stations retain management information of the mobile stations registered and communicating in their respective zones; additionally, Interworking Node 50B of BS28<sub>1-1</sub>/Interworking unit 50B has an internal database 52 which contains the IP addresses of UEs, col. 11, lines 37-40].**

Willars et al. does not specifically disclose the broadcast format for transferring data. However, a broadcast format is well known in wireless communications—especially regarding radio network controllers executing a soft handoff for UE 30 moving from the zone for BS28<sub>1-1</sub>/Interworking unit 50B to the zone for BS28<sub>1-2</sub>; during a soft handoff, the radio network controller “broadcasts” the data to both base stations (as control is passed from one base station to the other) so that the same information is sent to UE 30. Additionally, it is well known to use broadcast communications to transfer data. Thus, using a broadcast format to transfer data would have been obvious to one of ordinary skill in the art at the time of the invention in order to reduce complexity as well as ensure that all subordinate base stations receive the same information that is sent to UE 30.

20. With regard to claim 10, Willars et al. discloses that the transmission unit **[Fig. 2B, RNC26<sub>1</sub>; in UMTS, RNC26<sub>1</sub> has multiple transmission/reception means]** broadcasts a *user* packet not addressed to a different system, and

when a received packet is addressed to the different system, the transmission unit transmits said *user* packet either to the different system, or to a corresponding further

superordinate node in the hierarchy [Fig. 2B, communications to/from Internet 14--  
GGSN 20—RNC26<sub>1</sub>—BS28<sub>1-1</sub>/Interworking Node 50B (w/internal database 52)—UE  
30 via broadcast channels col. 9, lines 1-6].

Willars et al. does not specifically disclose the broadcast format for transferring data. However, a broadcast format is well known in wireless communications—especially regarding radio network controllers executing a soft handoff for UE 30 moving from the zone for BS28<sub>1-1</sub>/Interworking unit 50B to the zone for BS28<sub>1-2</sub>; during a soft handoff, the radio network controller “broadcasts” the data to both base stations (as control is passed from one base station to the other) so that the same information is sent to UE 30. Additionally, it is well known to use broadcast communications to transfer data. Thus, using a broadcast format to transfer data would have been obvious to one of ordinary skill in the art at the time of the invention in order to reduce complexity as well as ensure that all subordinate base stations receive the same information that is sent to UE 30.

### *Response to Arguments*

21. Applicant's arguments filed on June 28, 2009 have been fully considered but they are not persuasive.

22. With respect to claim 1, 8, and 9, Applicants state that Willars et al. fails to disclose a mobile station “managed by the terminal node of interest, based on the management

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information retained by the terminal node of interest.” [See **Applicants’ Amendment dated June 28, 2009, page 9, paragraphs 1-3; page 8, paragraph 7**]. Specifically, Applicants point to Figure 2B of Willars et al. and argue, apparently, that while the RNC in Willars et al. may retain management information of a mobile station of interest, the cited RNC of Willars et al. cannot be the claimed “terminal node(s).” The examiner respectfully agrees. The cited RNCs of Willars et al. correspond to the claimed “plurality of intermediate nodes” [Willars et al., Fig. 2B, RNC 26<sub>1</sub>, and RNC 26<sub>2</sub>].

23. Applicants seem to be arguing (again) that that Willars et al. fails to disclose retaining management information at the respective base station [See **Applicants’ Amendment dated June 28, 2009, page 10, paragraph 1; See Also Applicants’ Amendment dated December 22, 2008, page 6, paragraph 4**]. The examiner respectfully disagrees.

24. As noted in the rejection of claim 1 above, base stations retain management information of the mobile stations registered and communicating in their respective zones (thus, once the mobile station registers at one base station, the management information only needs to be kept at that base station); additionally, Interworking Node 50B of BS28<sub>1</sub>.  
1 /Interworking unit 50B has an internal database 52 which contains the IP addresses of UEs, [col. 11, lines 37-40]. Moreover, when the mobile station registers with only one base station and never moves out of that base station’s coverage area, only that base station will retain the management information.

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25. Furthermore, if Applicants mean that the management is kept on a “token” basis, such a limitation is not present in the claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the management is kept on a “token” basis) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

26. Finally, if applicants mean that the polling of the Home Location Register (HLR)/Visitor Location Register (VLR) within GSM/GPRS/UMTS architectures is bypassed, such limitations are not in the claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the polling of the Home Location Register (HLR)/Visitor Location Register (VLR) within GSM/GPRS/UMTS architectures is bypassed) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

27. With respect to claims 1, 8, and 9, Applicants state that Willars et al. shows a redundant routes for IP packet flow to each terminal node [See Applicants' Amendment dated June 28, 2009, page 10, paragraph 2 to page 11, paragraph 4; See Also Applicants' Amendment dated December 22, 2008, page 6, paragraphs 5-6; page 7, paragraphs 2-8]. Specifically, Applicants argue, apparently, that Willars et al.

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disclosure of the 3GPP R99 standards limits Willars et al. to the need to transport data between RNCs of the RAN and, correspondingly, despite clear evidence to the contrary, this must lead to the conclusion that Willars et al. must only be interpreted as disclosing, teaching, or suggesting redundant IP packet flows to each terminal node [See **Applicants' Amendment dated June 28, 2009, page 10, paragraph 4**]. The examiner respectfully disagrees.

28. First, as noted in the rejection of claim 1 above, Willars et al. discloses that there are no redundant IP packet flow communication routes to each of BS28<sub>1-1</sub>/Interworking unit 50B, BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, or BS28<sub>2-2</sub> (terminal nodes) from GGSN 20 **[Fig. 2B; (i.e., there are only control signaling interfaces; col. 9, lines 31-45; col. 9, line 66 to col. 10, line 9; See also col. 8, lines 44-46)]**. The examiner notes the broad, yet reasonable interpretation of redundant paths with respect to Applicants' Specification.

29. Second, Applicants response indicates that they believe that the "3GPP 99" disclosed in Willars et al. is its own standard and/or is self-contained. However, "Release 99" relates to the 3<sup>rd</sup> Generation mobile systems developed within the 3<sup>rd</sup> Generation Partnership Project (3GPP). An overview of what Willars et al. discloses is 3GPP TS 25.401 V3.10.0 (2002-06), UTRAN Overall Description (Release 1999). More appropriately, 3GPP TS 25.420 V.3.3.0 (2001-03), UTRAN I<sub>UR</sub> Interface General Aspects and Principles (Release 1999), discloses the logical interface between two RNCs. As disclosed in the previous rejection **[Non-Final Rejection dated February 2, 2009, pages 16-17, paragraph #25]**, 3GPP TS 25.420 V.3.3.0 (2001-03) specifically discloses

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that the  $I_{UR}$  interface handles control signaling such as handover, radio resource handling, and synchronization. Moreover the  $I_{UR}$  data streams carry user [identification] data and control information for the Dedicated Channel (DCH). The  $I_{UR}$  data streams also provide control information for handoff between the Source RNC (SRNC) and the Drift RNC (DRNC) as well as carry transport frames and MAC SDUs for the Data Shared Channel (DSCH) [3GPP TS 25.420, V3.3.0 (2001-03), pages 8-9, Section 4.4]. There are no redundant routes for IP packet flow (i.e., between the core network and the mobile station). Moreover, the claim limitations still allow for the use of non-IP data or voice packets (e.g., control signaling).

30. Third, Applicants have mistaken IP packet flow with the more generic packet data flow. Willars et al. specifically discloses AAL2/ATM data transport [col. 3, lines 55-59]. Also, there is no un-translated IP packet flow below BS28<sub>1-1</sub>/Interworking unit 50B, BS28<sub>1-2</sub>, BS28<sub>2-1</sub>, or BS28<sub>2-2</sub> (terminal nodes) because these base stations must change the ATM data packets into transport frames/packet data units in conformance with the radio interfaces and/or specific radio channels. [Willars et al., Fig. 2B; *See Also* 3GPP TS 25.420, V3.3.0 (2001-03), pages 8-9, Sections 4.4-to-4.4.6]. Again, as noted above, there are no redundant routes for IP packet flow between RNCs [3GPP TS 25.420, V3.3.0 (2001-03), pages 8-9, Sections 4.4-to-4.4.6].

31. Fourth, Interworking unit 50B of BS28<sub>1-1</sub>/Interworking unit 50B provides interworking at only the transport layer for the control signaling interfaces [col. 9, line 66 to col. 10, line 9]. The examiner notes that an interworking function provides ATM-to-

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IP “translation” and vice-versa (when required). Specifically, the examiner interprets this configuration as a non-redundant path.

32. Fifth, if Applicants are arguing that lack of redundant paths means that there are absolutely no connections (wired or wireless) between radio network controllers (RNCs) such that RNC-to-RNC communications are prevented/absent, such a limitation is not present in the claims. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., lack of redundant paths means that there are absolutely no connections (wired or wireless) between radio network controllers (RNCs) such that RNC-to-RNC communications are prevented/absent) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

33. Accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

34. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Ronneke (USP 7,359,360), Communication system supporting wireless communications of packet data and method and arrangement relating thereto.

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK MAIS whose telephone number is (571)272-3138. The examiner can normally be reached on 5am-4pm.

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37. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

38. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/28/2009

/MARK MAIS/

Examiner, Art Unit 2419

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 2419